

# Appendix A

## Calculations Summary

Quantitative Factor scores are based on data from key HUD systems. However, converting this data into factor scores can be confusing. Here is a breakdown of the sources and calculations used to generate Quantitative Factor scores for each factor category.

## Low Rent

### Performance Category

#### Quantitative Factor Weight: 50 points (maximum)

The Performance category is based on the Real Estate Assessment Center's (REAC) Public Housing Assessment System (PHAS) scores.

#### Criteria:

REAC's Annual Assessment. For more information on REAC's scoring system, visit the REAC Web site at <http://www.hud.gov/offices/react/>.

Physical Inspection (PASS) = 30 possible PHAS points, 19 possible risk factor points  
Financial Assessment (FASS) = 30 possible PHAS points, 19 possible risk factor points  
Management Assessment (MASS) = 30 possible PHAS points, 10 possible risk factor points  
Resident Surveys (RASS) = 10 possible PHAS points, 2 possible risk factor points

Maximum Potential PHAS Score = 100

Maximum Potential Low Rent Risk Factor Points = 50

#### Calculation:

In PHAS, a score of 100 indicates the strongest performance, while 0 is the lowest performance score. In addition to converting the score from a 100-point scale to a 50-point scale, PIC reverses the score so 0 is the strongest performance possible and 50 is the weakest.

**Note:** Due to Government Accounting Office requirements, PHAs receiving a failing score on PASS, FASS, or MASS assessments (less than 18 PHAS score) are automatically classified as High Risk. Even if they score better than the High Risk level overall, they are issued a PHAS adjustment, giving them 65 total risk points.

The ranges for the conversions are:

| PASS score    | Score     |
|---------------|-----------|
| 0 - 17.99     | <b>19</b> |
| 18.00 - 20.99 | <b>15</b> |
| 21.00 - 23.99 | <b>10</b> |
| 24.00 - 26.99 | <b>5</b>  |
| >27           | <b>0</b>  |

| FASS Score    | Score     |
|---------------|-----------|
| 0 - 17.99     | <b>19</b> |
| 18.00 - 20.99 | <b>15</b> |
| 21.00 - 23.99 | <b>10</b> |
| 24.00 - 26.99 | <b>5</b>  |
| >27           | <b>0</b>  |

| MASS Score    | Score     |
|---------------|-----------|
| 0 - 17.99     | <b>10</b> |
| 18.00 - 20.99 | <b>8</b>  |
| 21.00 - 23.99 | <b>6</b>  |
| 24.00 - 26.99 | <b>3</b>  |
| >27           | <b>0</b>  |

| RASS Score | Score    |
|------------|----------|
| 0 - 5.9    | <b>2</b> |
| > 6        | <b>1</b> |

**Example:**

*PHA A*

- PASS Score: 19.7829
- **Risk Factor Points: 15**
- RASS Score: 3.4705
- **Risk Factor Points: 2**
- MASS Score: 28.4348
- **Risk Factor Points: 0**
- FASS Score: 24.7000
- **Risk Factor Points: 5**

Performance Score: 22

*PHA B*

- PASS Score: 14.0723
- **Risk Factor Points: 19\***
- RASS Score: 8.3496
- **Risk Factor Points: 1**
- MASS Score: 22.1739
- **Risk Factor Points: 6**
- FASS Score: 20.6100
- **Risk Factor Points: 15**

Performance Score: 41

\* This PHA receives an overall risk score of 65 because it failed the PASS indicator.

## Funding Category

The Funding category is based on data compiled from PIC, the Line of Credit Control System (LOCCS), and the HUD Central Accounting and Program System (HUDCAPS).

### Quantitative Factor Weight: 30 points maximum

#### Criteria:

- Total authorized funds – 5 points. Authorized funds are PHA operating subsidy and grants. The greater the amount of total authorized funds, the higher the risk score. This data is pulled from LOCCS.

| Range                  | Risk Points |
|------------------------|-------------|
| \$0-1                  | 0           |
| \$1-50,000             | 1           |
| \$50,000-300,000       | 2           |
| \$300,000-1,250,000    | 3           |
| \$1,250,000-10,000,000 | 4           |
| >\$10,000,000          | 5           |

- Total disbursed funds – 5 points. Disbursed funds are grant funds the PHA has disbursed. The greater the amount of total disbursed funds, the lower the risk score. PIC generates this score using data from LOCCS.

| Range                  | Risk Points |
|------------------------|-------------|
| \$0-1                  | 5           |
| \$1-50,000             | 4           |
| \$50,000-300,000       | 3           |
| \$300,000-1,250,000    | 2           |
| \$1,250,000-10,000,000 | 1           |
| >\$10,000,000          | 0           |

- Percentage of disbursed funds – 5 points. The greater the percentage of disbursed funds, the lower the risk score. This data is pulled from LOCCS.

| Range  | Risk Points |
|--------|-------------|
| 0-20%  | 5           |
| 20-35% | 4           |
| 35-50% | 3           |
| 50-75% | 2           |
| 75-90% | 1           |
| >90%   | 0           |

- Funding complexity – 10 points. Funding complexity is based on the number and type of grant programs managed by a PHA, which is a measure of the relative difficulty of managing a portfolio. The greater the complexity of managing grants, the higher the risk score. This data is pulled from LOCCS.

| Range | Risk Points |
|-------|-------------|
| 0-0.5 | 0           |
| 0.5-4 | 4           |
| 4-8   | 7           |
| 8-15  | 9           |
| >15   | 10          |

- Average bedroom size – 5 points. The average number of bedrooms per unit measures bedroom complexity. The greater the number of average bedrooms, the greater the number of residents in a property, which may result in higher maintenance and renovation costs, longer vacancy turnover times, and higher management-related costs in terms of time and resources. The higher the average bedroom size, the higher the risk scores. This data is pulled from the **Form-50058 Module**.

| Range   | Risk Points |
|---------|-------------|
| 0-0.8   | 0           |
| 0.8-1.2 | 1           |
| 1.2-1.6 | 2           |
| 1.6-2   | 3           |
| 2-2.5   | 4           |
| >2.5    | 5           |

**Calculation:**

No conversion calculations are needed for the funding profile.

**Example:**

*PHA A*

- \$100,000 authorized funds
- \$10,000 disbursed funds
- 10% of funds disbursed
- 12 grant programs
- Two bedroom average

PIC score: 24 points

*PHA B*

- \$45,000 authorized funds
- \$43,000 disbursed funds
- 96% of funds disbursed
- Two grant programs
- One bedroom average

PIC score: 11 points

## Compliance Category

Risk points in this category are based on a number of factors related to PHA compliance with program requirements. The Risk Assessment Sub Module uses the same factors for assigning risk points for both public housing and Section 8. The compliance score is comprised of the following factors.

### Quantitative Factor Weight: 20 points (maximum)

#### Criteria:

Factor 1 - MTCS Reporting Rate (maximum of 6 points)

| Range  | Risk Points |
|--------|-------------|
| 0-85%  | 6           |
| 85-95% | 3           |
| >95%   | 0           |

Factor 2 - Open IPA Audit/Other Audit Findings or Concerns (maximum of 1 point)

| Range | Risk Points |
|-------|-------------|
| 0-1   | 0           |
| >1    | 1           |

Factor 3 - Open Significant IPA Audit/Other Audit Findings (maximum of 1 point)

| Range | Risk Points |
|-------|-------------|
| 0-1   | 0           |
| >1    | 1           |

Factor 4 - Significant IPA Audit Findings (maximum of 1 point)

| Range | Risk Points |
|-------|-------------|
| 0-1   | 0           |
| >1    | 1           |

Factor 5 - OIG Open Findings (maximum of 4 point)

| Range | Risk Points |
|-------|-------------|
| 0-1   | 0           |
| >1    | 4           |

Factor 6 - Open Event Findings, Concerns, or Significant Findings for On-Site, Remote, MOA, or Initial Assessment Events (maximum of 3 points)

| Range | Risk Points |
|-------|-------------|
| 0-1   | 0           |
| 1-2   | 2           |
| >2    | 3           |

Factor 7 - Days Since Last On-Site, Remote, MOA, or Initial Assessment Event  
(maximum of 2 points)

| <b>Range</b> | <b>Risk Points</b> |
|--------------|--------------------|
| 0-548        | 0                  |
| 548-1460     | 1                  |
| >1460        | 2                  |

Factor 8 - Last Event Tracking System (ETS) Event Result Type (maximum of 2 points)

| <b>Range</b> | <b>Risk Points</b> |
|--------------|--------------------|
| Low          | 0                  |
| Medium       | 1                  |
| High         | 2                  |

**Calculation:**

No conversion calculations are needed for the Compliance indicator.

**Example:**

*PHA A*

- 300 days since last PHA event
- Low result at the last ETS event
- 98% MTCS reporting rate
- One open event findings
- No open audit findings
- No open significant audit findings
- No significant audit findings
- No OIG findings

PIC score: 0 points

*PHA B*

- 6 years since last PHA event
- High result from last ETS event
- 85% MTCS reporting rate
- Four open event findings
- one open audit finding
- two open significant audit findings
- one significant audit finding
- one OIG finding

PIC score: 13 points

## Section 8

The PIC Risk Assessment Sub Module pulls data from SEMAP to compile a PHA's Section 8 Performance score. SEMAP scores are compiled from independent audits and the **Form-50058 Module**.

### Performance Category

SEMAP's performance assessment includes scoring based on analysis of 14 performance indicators and one bonus indicator.

**Quantitative Factor Weight: 50 points**

### Criteria:

| Indicator Number | Indicator                        | Maximum SEMAP Score |
|------------------|----------------------------------|---------------------|
| Indicator #1     | Selection from the Waiting List  | 15 points           |
| Indicator #2     | Rent Reasonableness              | 20 points           |
| Indicator #3     | Determination of Adjusted Income | 20 points           |
| Indicator #4     | Utility Allowance Schedule       | 5 points            |
| Indicator #5     | HQS Quality Inspections          | 5 points            |
| Indicator #6     | HQS Enforcement                  | 10 points           |
| Indicator #7     | Expanding Housing Opportunities  | 5 points            |
| Indicator #8     | Payment Standards                | 5 points            |
| Indicator #9     | Annual Reexaminations            | 10 points           |
| Indicator #10    | Correct Tenant Rent Calculations | 5 points            |
| Indicator #11*   | Pre-Contract HQS Inspections     | 5 points            |
| Indicator #12*   | Annual HQS Inspections           | 5 points            |
| Indicator #13    | Lease-Up                         | 20 points           |

| Indicator Number | Indicator  | Maximum SEMAP Score |
|------------------|--|---------------------|
| Indicator #14    | Family Self-Sufficiency Enrollment and Escrow Accounts | 10 points           |
| Bonus Indicator  | Deconcentration  | 5 points            |

**\* Indicators 11 and 12 are temporarily unavailable for operational purposes. They are currently planned to return in 2004.**

**Note:** PHAs receiving less than \$300,000 per year from the Government are not scored on indicators 1 – 7.

**Calculation:**

Assuming all indicators are available, a score of 140 indicates the strongest performance, while 0 is the lowest performance score in SEMAP. In addition to converting the score from a 140-point scale to a 50-point scale, PIC reverses the score, so it accurately reflects the PHA's performance. The formulas for this conversion are:

$$\text{SEMAP score (\%)} = \frac{\text{total points including bonus indicator}}{\text{total points possible}}$$

$$X = \text{SEMAP score \%}$$

$$(100 - X) * .5 = \text{Risk Factor Score}$$

**Example**

*PHA A*

SEMAP score: 80 %

Formula:  $(100 - 80) * 0.5$

PIC score: 10

*PHA B*

SEMAP score 50 %

Formula:  $(100 - 50) * 0.5$

PIC score: 25

## Funding Category

PIC generates a Section 8 funding profile score using data from HUDCAPS.

### Quantitative Factor Score Weight: 30 points (maximum)

#### Criteria:

Factor 1 - Total Annual Budget Authority (ABA) Funds (maximum of 15 points)

| Range                  | Risk Points |
|------------------------|-------------|
| \$0-1                  | 0           |
| \$1-50,000             | 3           |
| \$50,000-300,000       | 6           |
| \$300,000-1,500,000    | 9           |
| \$1,500,000-10,000,000 | 12          |
| >\$10,000,000          | 15          |

Factor 2 - Funding Complexity (maximum of 10 points)

| Range | Risk Points |
|-------|-------------|
| 0-1   | 0           |
| 1-10  | 4           |
| 10-25 | 7           |
| 25-60 | 9           |
| >60   | 10          |

Factor 3 - Bedroom Complexity (maximum of 5 points)

| Range   | Risk Points |
|---------|-------------|
| 0-1.5   | 0           |
| 1.5-1.9 | 1           |
| 1.9-2.1 | 2           |
| 2.1-2.3 | 3           |
| 2.3-2.5 | 4           |
| >2.5    | 5           |

#### Calculation:

No calculations are needed.

#### Example:

##### *PHA A*

- \$100,000 ABA funds
- 12 grant programs
- Two bedroom average

PIC score: 18 points

##### *PHA B*

- \$45,000 ABA funds
- 2 grant programs
- 1 bedroom average

PIC score: 7 points

**Compliance Category**

**Same as Low Rent Compliance Indicator**